

NEUATION



iROLL RNR4

PRODUCT USER MANUAL

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1. PRODUCT DESCRIPTION

1.1 INTRODUCTION

This manual provides important safety information for this tube roller. It should be kept near the equipment for quick & easy reference. The rolling motion also provides gentle rocking for thorough mixing. The removable rollers can be set to suit tubes and bottles of different diameters. The rollers can be easily removed and replaced for cleaning.

1.2 INTENDED USE

This tube roller is used in laboratories for mixing blood samples, viscous samples and for liquid-solid suspensions.

NOTE: Before using the instrument, please read this user manual carefully. This user manual is intended to assist with the operation and care of the unit only and not its repair. For repair please contact the supplier.

1.3 SYMBOL

 Warning	 Waste electrical
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1.4 STANDARD ACCESSORIES

- Power Cord
- Product user manual & warranty card
- Lubricant bottle

1.5 FEATURES

- Gentle rocking and rolling motion for optimum mixing
- Fixed speed of 30 RPM with speed accuracy of +/-2 RPM
- Continuous / infinite mode of operation
- Tilt angle of +/- 3°
- Tool free removal / installation of rollers for replacement and cleaning
- Adjustable rollers spacing to hold different diameter tubes
- Suitable for mixing of blood sample and viscous substances
- Small footprint saving laboratory space
- Works with 80% humidity and 40°C
- Protection class of IP 21
- Robust construction for stable operation

1.6 TECHNICAL SPECIFICATIONS

Motor Type	AC Synchronous Motor
Number of Tube Rollers	4 Rollers
Rocking Motion	Rolling & Rocking

1. PRODUCT DESCRIPTION

Speed Range	Fixed 30 RPM
Speed Accuracy	± 2 RPM
Timer Range	Continuous mode
Tilt Angle	3°
Max. Loading Capacity	1.5 Kg
Removable Rollers	Yes
Roller Size	330 (length) x 30 (roller dia)
Dimensions	475 x 210 x 80 mm
Protection Class	IP 21
Permissible Ambient Temp.	5° C to 40 °C
Permissible Relative Humidity	$\leq 80\%$
Weight	1.5 Kg
Altitude	Use upto an altitude of 2000 m above MSL
Pollution Degree	2
Environment	For indoor use only
Power Supply	110VAC, 60Hz / 230VAC, 50Hz
Power Consumption	3W (110V) / 6W (230V)

2. SAFETY PRECAUTIONS



Read all safety & usage information provided in this manual carefully before using the device.

- Never use the instrument in any manner not specified in this manual.
- Equipment used in any manner not specified in this manual or by the manufacturer might result in the lapse of warranty.
- Do not try to stop the roller by blocking / holding it. Do not attempt to remove rollers during operation.
- Do not move the instrument while its operating or connected to the main power supply.
- Repairs must only be performed by authorized service technician.
- Only use recommended original spare parts for best result & product safety.
- If liquids are spilled on the roller, the instrument must be cleaned carefully and properly before being used again.
- Prior to mixing, the tubes should be visually inspected for material damage.
- Damaged tubes must not be used as this can result in sample loss and the contamination of the product.
- The maximum capacity of 1.5 kg must not be exceeded.
- This product must be used for specified applications only. It must not be operated in a hazardous or flammable environment and must not be used to mix explosive

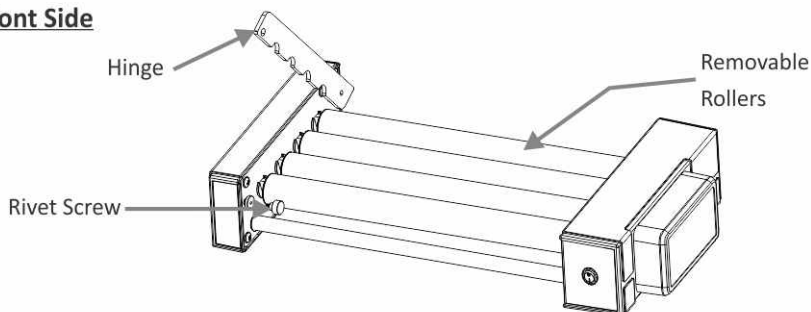
2. SAFETY PRECAUTIONS

or highly reactive substances.

- Do not place the potential hazardous material within the clearance area/envelope.
- Wear your personal protective equipment in accordance with the hazards category of the medium to be processed. There is risk of liquid splashing.
- Place the instrument on a flat, leveled and solid surface. Make sure the feet of the instrument are clean and undamaged.
- Load the tubes safely between the rollers. Always distribute the samples evenly on the device.
- Ensure that the hinges are properly locked by rotating screw clockwise before performing any operation.
- Do not apply any pressure to the hinges. They should be used only for locking and unlocking rollers.
- Remove the roller/s one after another.
- Ensure that only closed tubes are used for mixing and rolling.
- Do not lean on the equipment. It may damage the equipment or harm the operator.
- Do not fill tubes near the device. Liquid spillage may harm the device.
- In the event of contamination caused by aggressive agents, the device must be cleaned immediately using a natural cleaning liquid or refer MSDS (Material safety data sheet) of the chemical for more information. If any damage is seen, contact the service technician.
- The power adaptor given with the unit is designed to be used for this particular unit. Do not use any other power adaptor.
- Only process media which will not react dangerously to the extra energy produce by mixing.
- Do not operate the appliance in explosive atmosphere with hazardous substance or under water.

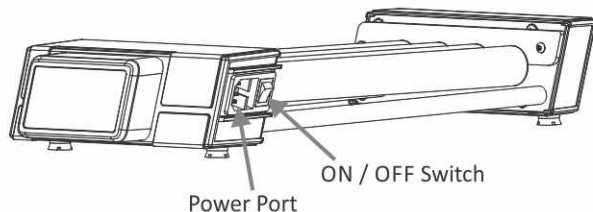
3. STANDARD PARTS LISTING

Font Side



3. STANDARD PARTS LISTING

Back Side



4. INSTALLATION

Gently remove the upper packaging and take out the tube roller by holding it from the bottom. When this equipment is used for the first time, ensure that all the packaging accessories are removed from the product. Please keep all the packaging in safe storage for at least 2 years for warranty purposes.

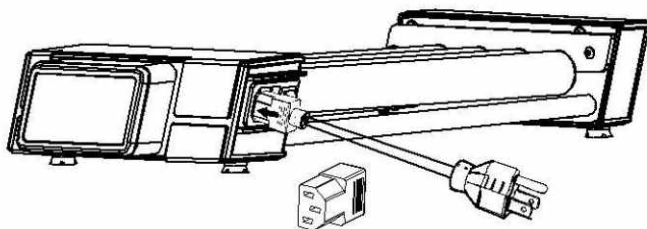
4.1 LOCATION & MOUNTING

Place the device on a flat and leveled surface and ensure that all four feet stand on the surface firmly. Avoid installing on a slippery surface or surface prone to vibration.

1. Ideal ambient temperature is $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$; avoid placing the device in direct sunlight.
2. Keep clearance of at least at least 30 cm from all sides to guarantee cooling efficiency.
3. Keep this away from heat or water to avoid sample temperature issues.
4. Do not place the device in such a place that it becomes difficult to operate.

4.2 CONNECTING POWER ADAPTOR

1. Connect one side of the power adaptor to the rear side of device and other to the power supply as shown in the figure below.
2. Ensure the power switch is OFF while connecting the power adaptor.



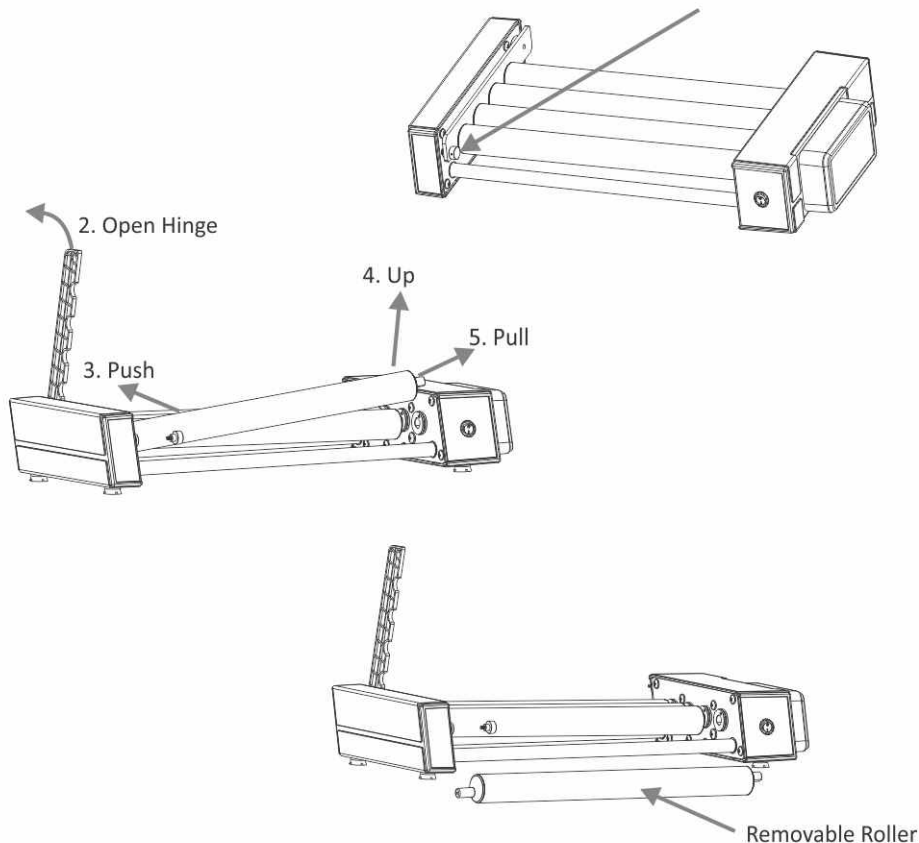
5. REMOVING & INSTALLING ROLLERS

5.1 REMOVING ROLLERS

Device rollers can be removed / changed by a simple push up and pull process. Open the Hinge as shown in the below image and then remove the rollers. **1)** Unscrew the hinge by rotating rivet counter clockwise **2)** Open hinge, **3)** Push the roller gently on hinge side, **4)** Pull the roller up, **5)** Pull the roller out of the side opposite to the hinge.

Below image shows the process to remove rollers.

1. Anticlockwise rotate to open and clockwise rotate to close

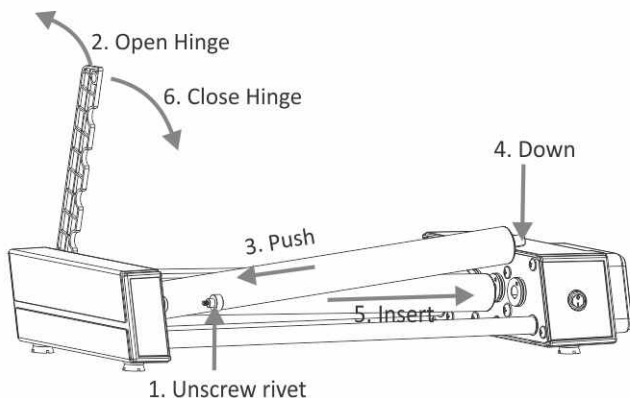


Make sure to remove the rollers in order. Remove the 1st roller then 2nd roller and so on. User won't be able to remove the roller from between.

5.2 INSTALLING ROLLERS

Follow the exact reverse process to insert the roller back to tube roller. Below image shows the step by step procedure to insert the roller back in the unit.

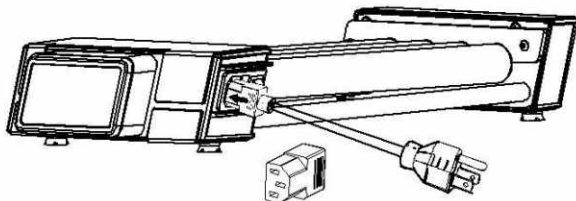
5. REMOVING & INSTALLING ROLLERS



6. OPERATION

6.1 SWITCH ON THE DEVICE

After connecting the power adaptor to rear side of the device, switch ON the main power supply & then switch ON the device from the rear side. Make sure that tubes are distributed even before use. Do not start the device if Hinge is open.



6.2 START / STOP OPERATION

Once all the pre-requisites procedures are done, switch on the main power supply to START the operation. Speed gradually increases from 0 RPM to 30 RPM. This equipment runs on continuous mode (for infinite time).

NOTE: There is no provision to change Speed in this equipment.

7. MAINTENANCE & CLEANING

Before cleaning the instrument, be sure to switch off the device and disconnect the power cord.

OUTSIDE OF THE DEVICE

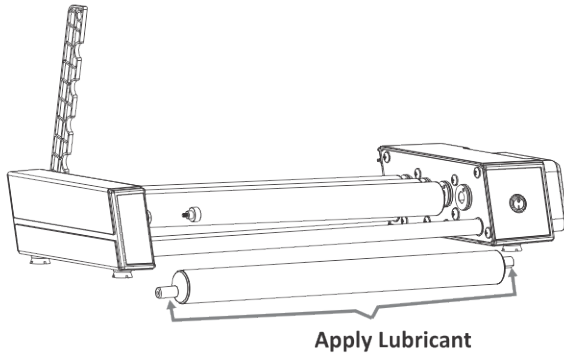
1. Clean the outside of the device with a soft and dry cloth.

7. MAINTENANCE & CLEANING

Before cleaning the instrument, be sure to switch off the device and disconnect the power cord.

OUTSIDE OF THE DEVICE

1. Clean the outside of the device with a soft and dry cloth.
2. Do not spray cleanser in to the instrument when cleaning.
3. Wear proper protective gloves during cleaning the instrument.
4. Maintenance to be done on monthly basis if usage continue.
5. Use the lubricant oil for maintenance both the side of the roller.
6. Make sure do not scratch the surface of equipment when cleaning it.
7. Do not use a metal sponge.



8. WARRANTY STATEMENT

This product is warranted to be free from defects in material and workmanship for a period of two (2) years from date of purchase. Your product will be duly repaired upon prompt notification in compliance with the following conditions :

This warranty is valid only if the product is used for its intended purpose and within the guidelines specified in this instruction manual. This warranty does not cover damage caused by accident, neglect, misuse, improper service, natural forces or other causes not arising from defects in original material or workmanship. This warranty does not cover any incidental or consequential damages, commercial loss or any other damages from the use of this product.

The warranty is invalidated by any non-factory modification, which will immediately terminate all liabilities on us for the products or damages caused by its use. The customer shall be responsible for the product or use of products as well as any supervision required for safety. If requested the products must be returned to the

8. WARRANTY STATEMENT

distributor in well packed and insured manner and all shipping charges must be paid.

NOTE: Some states do not allow limitation on the length of implied warranties or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights. This warranty is given expressly in lieu of all other warranties, expressed or implied.

The purchaser agrees that there is no warranty of merchantability or of fitness for any intended purpose and there are no other remedies or warranties, implied, which extend beyond the description on the face of the agreement. This warranty is only applicable to the original purchaser.

Products received without proper authorization will not be processed for warranty or service. All items returned for service should be sent with postage prepaid in the original packaging or other suitable packaging, padded to avoid damage. We will not be responsible for damage incurred by improper packaging.

NOTE: This warranty is valid only if the warranty is registered with the supplier within 30 days from the date of purchase.

For your reference, make a note of serial number, date of purchase and supplier here.	
Serial No.:	Purchase Date:
Supplier:	

9. PRODUCT DISPOSAL

In case the product is to be disposed of, the relevant legal regulations are to be observed.

Information on the disposal of electrical and electronic devices in the European Community

The disposal of electrical devices is regulated within the European Community by national regulations based on EU Directive 2012/19/EU on waste electrical and electronic equipment (WEEE). According to these regulations, any devices supplied after 13.06.05 in the business to business sphere, to which this product is assigned, may no longer be disposed off in municipal or domestic waste. They are marked with the following symbol to indicate this.

As disposal regulations within the EU may vary from country to country, please contact your supplier if necessary.



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